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Continuous selections, G_δ -subsets of Banach spaces and usco mappings

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Abstract: Every l.s.c. mapping from a paracompact space into the non-empty, closed, convex subsets of a (not necessarily convex) G_δ -subset of a Banach space admits a single-valued continuous selection provided every such mapping admits a convex-valued usco selection. This leads us to some new partial solutions of a problem raised by E. Michael.

Keywords: set-valued mapping, lower semi-continuous, upper semi-continuous, selection, countable-dimensional space

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